

REMARKS/ARGUMENTS

Claims 1-9, 11-24, 29, 31-37, 54, 64, 76, 89, 102, 117, 133, 150, and 163-178 are currently pending. Claims 46-53, 55-63, 65-75, 77-88, 90-101, 103-116, 118-132, 134-149, and 151-160 have been canceled without prejudice or disclaimer. Claims 1, 12, 13, 22, 29, 54, 163, and 176-178 have been amended for clarification and/or amended as either self-supporting or supported by the original disclosure, such as in accordance with page 10, fourth paragraph, through page 11, second paragraph, of PCT/EP00/06645 (WO 01/05182) and Figure 4. It is respectfully submitted that no new matter has been added.

35 U.S.C. § 103(a)

Claims 1-3, 7-22, 29, 33, 46, 47, 51-57, 61-69, 73-82, 86-95, 99-110, 114-126, 130-143, 147-160, and 163-178 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Charbonnier, U.S. Patent No. 5,241,686, in view of D'Amico, U.S. Patent No. 5,127,100.

Claims 4-6, 23, 24, 31, 32, 35-37, 48-50, 58-60, 70-72, 83-85, 96-98, 111-113, 127-129, and 144-146 stand rejected under 35 U.S.C. §103 as unpatentable over Charbonnier, in view of D'Amico, U.S. Patent No. 5,127,100, and further in view of Karlsson, U.S. Patent No. 5,640,677.

Claims 165 and 166 were rejected under 35 U.S.C. §103(a) as being unpatentable over Charbonnier, U.S. Patent No. 5,241,686, in view of D'Amico, U.S. Patent No. 5,127,100, and further in view of Jones, U.S. Patent No. 6,192,245.

As discussed previously by Applicant, Charbonnier discloses a method for optimising the distribution of the radio electric load on a radio communication cellular network between fixed delays. The document clearly discloses in column 6, that a synthesiser is positioned successively and cyclically on each of the frequencies (of the radio channels used as beacon routes). Then for each frequency, the output signal from the modem is analysed by the unit to determine if it is a beacon route, and if necessary to read the characteristic data of the relay amongst which the value of the field correction parameter (H), and simultaneously the field strength or power (E) of the electric field for the beacon route. The unit then computes the difference between the power of the received field and the field correction parameter and stores the field in memory.

It is only when the mobile has scanned the entire set of beacon routes listed in the table of frequencies, including the beacon route of the channel in which it is currently located, that the

unit compares the values of the corrected fields and determines the beacon route having the highest corrected value.

Thus Charbonnier, as accepted by the Examiner, does not disclose the feature of measuring the duration of time for which the measured strength of the communication from the at least one other cell exceeds the measured strength of the communication from the current cell during said comparing. Thus claim 1 is novel over Charbonnier.

Furthermore Charbonnier does not disclose modifying the measured strength of the communication from the current cell by an offset value, the first offset value being dependent on the offset information. In other words, Charbonnier, although implementing a correction factor for each beacon including the current one, does not disclose an offset or correction factor attributed to the current cell dependent on it only being the current cell. The Charbonnier document teaches only a loading correction factor, in other words, dependent on the load of the cell and not due to it being the current cell.

Thus in such a system, there would be a problem in that stations could jump from cell to cell quickly dependent on the loading of the cell and in particular if the loading correction factor has a harsh correction factor loading correlation. It could be imagined that the current station jumps from cell A to cell B, cell B now considers itself to be heavily loaded and attempts to offset the station back to cell A and vice versa.

The present invention by implementing the hysteresis or offset value depending on it being the current cell effectively bias the decision to the current cell to prevent such rapid handover processes from having to occur unless necessary.

Charbonnier does not disclose modifying the measured strength of the current cell with an offset value and modifying the measured strength of at least one other cell with a further offset value.

The Patent Office had asserted on page 6, lines 12-14, "Charbonnier further teaches wherein a value is added to the measured strength of the communication from the current cell prior to said step of comparing (Column 8 lines 41-50)." This passage from Charbonnier discloses as follows:

simultaneously the field measurer 43 measures the power of the received field E.sub.i for the beacon route of relay R.sub.i and transmits the value of the measured field to unit 46. Unit 46 computes the difference E.sub.i - H.sub.i and stores corrected field G.sub.i in memory. When mobile M has

scanned all the beacon routes listed in the table of frequencies, including the beacon route of the channel in which it is located, unit 46 compares the values of the corrected field and determines the beacon route having the highest corrected field value such that a quantity $E_{\text{sub}.i} - H_{\text{sub}.i}$ obtained by deducting the value of the correction parameter from the value of the field according to equation (4) attributed to the preferred embodiment described here.

In Applicant's claimed invention, there are both modification of the measured strength of the communication from the current cell by an offset value in dependence on the obtained offset information and modification of the measured strength of the communication from the at least one other cell with a further offset value. The above passage in Charbonnier, relied upon by the patent office, discloses a radio-electric field E and a field correction parameter H , but no further offset value.

D'Amico discloses a digital radio communication system that has a plurality of cells for providing two-way digital radio communication in which each of the cells utilizes communication frames having at least one inbound communication slot and at least one outbound communication slot (abstract). The Patent Office asserted that D'Amico, column 4, lines 18-25, discloses "means for measuring a duration of time for which the measured signal strength of the communication from a cell exceeds the measured strength of the communication from another cell." This passage discloses as follows: "The radio 40 regularly checks the signal strength of adjacent cells. As the radio 40 is moved, whether it is a portable or mobile type radio, the received signal strength will change. The micro controller 53 monitors the RSSI output of the switchable IF 47. If the radio 40 determines that another cell has a higher signal strength for a period of time, the radio requests service from that cell." D'Amico does not explicitly teach a timer for doing this. Furthermore there is no disclosure of modifying the measured strength of the communication from the current cell by an offset value, the first offset value being dependent on the offset information and being the current cell of the station.

The Patent Office is reminded that claims are to be taken as a whole. Claim 1 recites, in addition to modifying and comparing the measured signal strengths, "measuring a duration of time for which the measured strength of the communication from the at least one other cell exceeds the measured strength of the communication from the current cell during said comparing." At least one of the measured strengths during the comparing is a measured strength

as modified by an offset obtained from a decoded communication. A measured strength of the current cell is also modified by a further offset value.

Karlsson shows a threshold is used for comparisons with serving and neighbor signal strengths (e.g., 132, 127 of Figure 11). Karlsson also discloses a signal quality increment called either an offset or hysteresis (column 2, lines 35-36) in contrast to Applicant's claimed invention in which offset and a further offset refer to different values. Karlsson discloses a threshold such as in column 13, lines 56-60, as follows: "If, however, at 127, it has been determined that the signal strength for the neighboring cell was greater than the threshold value, the system moves to add this neighbor's cell to the candidate list at 129 and thereafter to decision 128 to evaluate whether or not the last neighbor has been evaluated;" i.e., **the threshold value of Karlsson is not equivalent or similar to the offset of Applicant's claimed invention because as is clear in, e.g., Figure 10, the threshold is measured against signal strength and is not used to modify the value of the signal strength.** There is disclosure of adding inaccuracies in the mobile station (column 7, lines 24-26 and 57-59) but the disclosed inaccuracies in the mobile station are not obtained from decoding and so do not teach or suggest "decoding a communication from at least one of the current cell and the at least one other cell to obtain offset information." Karlsson discloses (column 11, lines 50-54) "Another way to provide the mobile the mobile with the frequencies, the neighbor types, two signal strength levels, i.e., the threshold and the hysteresis, and another hysteresis would be to broadcast the threshold and the hysteresis separately and let the mobile calculate the two levels." The threshold disclosed in column 11, lines 50-54, of Karlsson is described in column 11, lines 11-13, as "the threshold value is the threshold of sufficient signal strength in the neighbor cell plus a corresponding hysteresis or offset value." Like Charbonnier, Karlsson considers hysteresis and offset to be the same (also see column 2, lines 35-40).

As such, Karlsson does not remedy the deficiencies of Charbonnier and D'Amico.

Jones et al discloses a method for determining a handover for a mobile station in a multi-cellular communication system having a serving cell, a plurality of neighbouring cells, and at least one control cell where the cell includes at least one macro cell and a plurality of micro cells. The document does disclose as indicated in the flow diagram of Figure 2 and the Figure 1 that the mobile station monitors measurement reports for the serving cell and neighbour cells, and

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that when a mobile station served by a cell 3 detects that a neighbour cell 4 is being received at a power which exceeds a threshold, it starts a timer.

As Jones does not teach the modification of the measured strength of the communication from at least one of the current cell and the at least one other cell in dependence on the obtained offset information and modification of the measured strength of the communication from the current cell with a further offset value, Jones does not remedy the deficiencies of Charbonnier and D'Amico (or Karlsson).

Thus, claims 1-9, 11-24, 29, 31-37, 54, 64, 76, 89, 102, 117, 133, 150, and 163-178 are allowable over the prior art of record.

In Response to Response to Arguments in Office Action dated June 13, 2008

D'Amico does not teach both modification of the measured strength of the communication from the current cell by an offset value in dependence on the obtained offset information and modification of the measured strength of the communication from the at least one other cell with a further offset value and "measuring a duration of time for which the measured strength of the communication from the at least one other cell exceeds the measured strength of the communication from the current cell during said comparing." Charbonnier, in combination with D'Amico, whether or not further in combination with Karlsson or Jones, does not disclose or suggest modification of the measured strength of the communication from the current cell by an offset value in dependence on the obtained offset information and modification of the measured strength of the communication from the at least one other cell with a further offset value where the current cell with which the station is associated is changed only if the measured the measured strength of one of the at least one other cell is greater than the measured strength of the current cell (after modification) for a duration of time that is at least a predetermined time period.

The Patent Office is respectfully requested to reconsider and remove the rejections of the claims 1-9, 11-24, 29, 31-37, 46-160, and 163-178 under 35 U.S.C. 103(a) based on Charbonnier in view of D'Amico or Charbonnier in view of D'Amico and Karlsson, and to allow all of the pending claims 1-9, 11-24, 29, 31-37, 54, 64, 76, 89, 102, 117, 133, 150, and 163-178 as now presented for examination. An early notification of the allowability of claims 1-9, 11-24, 29, 31-37, 54, 64, 76, 89, 102, 117, 133, 150, and 163-178 is earnestly solicited.

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